



4-28-04

Express Mail No. ER452510932US  
Attorney Docket No.: AM-4913.C1

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Andres Fernandez et al.

§ GROUP ART UNIT: 2881  
§ (Parent Application)

SERIAL NO.: 10/803,352

§ EXAMINER: B. E. Souw  
§ (Parent Application)

FILED: March 18, 2004

§ Attorney Docket No.:  
§ AM-4913.C1

FOR: ELECTRON BEAM LITHOGRAPHY SYSTEM  
HAVING IMPROVED ELECTRON GUN

Date: April 26, 2004

**INFORMATION DISCLOSURE STATEMENT**  
**TRANSMITTAL LETTER**

Hon. Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Applicants are submitting the subject Information Disclosure Statement under 37 CFR § 1.97(b)(1). This Information Disclosure Statement is being submitted within three (3) months of the filing date of the subject application.

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**CERTIFICATE OF MAILING UNDER 37 CFR § 1.10**

I hereby certify that this paper is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as U.S. EXPRESS MAIL NO. ER452510932US in an envelope addressed to: Mail Stop DD, Commissioner for Patents, Alexandria, VA 22313-1450

Date: April 26, 2004

  
Shirley L. Church, Reg. No. 31,858

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Applicants do not believe that any fee is due in connection with the filing of this Information Disclosure Statement under 37 CFR § 1.97(b)(1). However, in the event that any additional fee is due, the Commissioner is hereby authorized to charge Deposit Account No. 50-1512 of Shirley L. Church, Sunnyvale, California, in the amount of such fee.

This transmittal letter is submitted in duplicate for accounting purposes.

Respectfully submitted,

  
\_\_\_\_\_  
Shirley L. Church  
Registration No. 31,858  
Attorney for Applicants

Correspondence Address:  
Patent Counsel  
Applied Materials, Inc.  
P.O. Box 450-A  
Santa Clara, California 95052



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**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR § 1.97(b)(1)**

**Hon. Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450**

Sir:

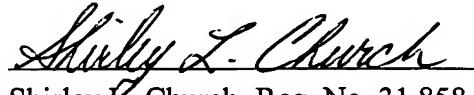
In accordance with 37 CFR § 1.97(b)(1), applicants hereby request consideration of this Information Disclosure Statement. This Information Disclosure Statement is being submitted within three (3) months of the filing date of the subject application.

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**CERTIFICATE OF MAILING UNDER 37 CFR § 1.10**

I hereby certify that this paper is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as U.S. EXPRESS MAIL NO. ER452510932US in an envelope addressed to: Mail Stop DD, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

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Applicants are providing herewith a copy of each document cited on the attached Form PTO-1449. The submission of this Information Disclosure Statement and Form PTO-1449 is not an admission that the art cited is "prior art" with respect to the present invention, nor is it a representation that no better art exists. Applicants hereby reserve the right to swear behind or otherwise disprove any alleged "prior" nature of any art cited should the facts support and the situation warrant such an action.

If the Examiner has any questions, he is respectfully requested to contact the undersigned attorney at the telephone number set forth below.

Respectfully submitted,

  
\_\_\_\_\_  
Shirley L. Church  
Registration No. 31,858  
Attorney for Applicants  
(650) 473-9700

Correspondence Address:  
Patent Counsel  
Applied Materials, Inc.  
P.O. Box 450-A  
Santa Clara, California 95052

**FORM PTO-1449**  
**(Equivalent)**

U.S. Department of Commerce  
Patent and Trademark Office

U.S. Application Serial No.  
10/803,352

Atty. Docket No.  
AM-4913.C1

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Andres Fernandez et al.  
Applicants

March 18, 2004  
Filing Date

2881  
Group

## U. S. PATENT DOCUMENTS

<u>Examiner Initial</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>	<u>Class</u>	<u>Subclass</u>	<u>Filing Date If Appropriate</u>
	4,390,789	06/28/83	Smith et al. *	250	492.2	
	4,460,831	07/17/84	Oettinger et al. *	250	492.2	
	4,639,638	01/27/87	Purcell et al. *	313	534	
	4,694,178	09/15/87	Harte *	250	396 R	
	4,788,514	11/29/88	Fox	332	7.5	
	4,820,927	04/11/89	Langner et al. *	250	492.2	
	5,038,072	08/06/91	Beghin	313	370	
	5,359,45	10/25/94	Gelbart et al.	359	285	
	5,386,221	01/31/95	Allen et al.	346	108	
	5,533,570	07/02/96	Teitzel et al.	395	108	
	5,684,360	11/04/97	Baum et al. *	313	542	
	5,729,022	03/17/98	Veneklaes et al. *	250	396 ML	

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Examiner	Date Considered
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Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

\* Cited during the prosecution of the parent application, U.S. Application Serial No. 10/055,869.

## **U. S. PATENT DOCUMENTS**

<u>Examiner Initial</u>	<u>Document Number</u>	<u>Issue Date</u>	<u>Name</u>	<u>Class</u>	<u>Subclass</u>	<u>Filing Date If Appropriate</u>
	5,814,821	09/29/98	Reusch et al.	250	492.3	
	5,960,013	09/28/99	Sheffield *	372	2	

## FOREIGN PATENT DOCUMENTS

<u>Examiner Initial</u>	<u>Document Number</u>	<u>Publication Date</u>	<u>Name</u>	<u>Class</u>	<u>Subclass</u>	<u>Translation (If Appropriate)</u>
	WO 98/48443	10/29/98	Wiesner et al.	H01J	37/30	
	WO 99/03016	01/21/99	Yao et al.	G02F	1/11	
	WO 99/03022	01/21/99	Tamkin et al.	G03F	7/20	
	WO 99/47978	09/23/99	Berglund et al.	G03F	7/20	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

- \* H. Bluem et al., "Photocathode Electron Source Development at Advanced Energy Systems", Proceedings of EPAC 2000, Vienna, Austria, pp. 1639 - 1641 (Sept 2000).
- \* A. di Bona et al., "Auger and x-ray photoemission spectroscopy study on  $\text{Cs}_2\text{Te}$  photocathodes", J. Appl. Phys., Vol. 80, No. 5, pp. 3024 - 3030 (Sept 1996).
- \* A. di Bona et al., "Formation of the  $\text{Cs}_2\text{Te}$  Photocathode: Auger and Photoemission Spectroscopy Study", Proc. EPAC 2000 Conference, Vienna, Austria (Sept 2000).

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— L. N. Dinh et al., "Synthesis and characterization of Si/Cs/O nanocluster thin films with negative electron affinity", Physical Review B, Vol. 59, No. 23, pp. 15513 - 15522 (1999).

— \* D. H. Dowell et al., "433 MHz High Duty Photocathode RF Gun Experiments", PERL Workshop, Jan. 22-23, 2001.

— S. H. Kong et al., "Cesium telluride photocathodes", J. Appl. Phys., Vol. 77, No. 11, pp. 6031 - 6038 (1995).

— \* P. Michelato et al., "Cs<sub>2</sub>Te photocathode for the TTF Injector II",

— \* B. K. Singh et al., "CsBr and CsI UN photocathodes: new results on quantum efficiency and aging", Nucl. Instr. & Meth., A454, pp. 374 - 378 (2000).

— \*\* C. Travier et al., "Candela Photo-Injector Experimental Results With a Dispenser Photocathode", Proc. EPAC 2000 Conference, Vienna, Austria (Sept 2000).

— \*\* JLAB Monthly Report IR Demo FEL Upgrade and Commissioning Project, June 1998.

— \*\* IBM Technical Bulletin No. NB8910279, "Improving Brightness and Current of Photoelectron Lithography" (Oct 1989).

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